What is claimed is:

1. A method of reducing the risk of transmission of a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen with a  $\beta$ -cyclodextrin.

2. The method of claim 1, wherein the pathogen is an enveloped virus.

3. The method of claim 2, wherein the enveloped virus is an impaunodeficiency virus, a T lymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.

- 4. The method of claim 2, wherein the enveloped is a human immunodeficiency virus.
- 5. The method of claim 2, wherein the enveloped virus is a Herpes simplex virus.
  - 6. The method of claim 1, wherein the pathogen is a microbial pathogen.
- 7. The method of claim 6, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.
  - 8. The method of claim 6, wherein the microbial pathogen is a Chlamydia spp., a Trichomona spp., or a Candida spp.

9. A method of reducing the risk of a subject becoming infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen in the subject with a pharmaceutical composition comprising a  $\beta$ -cyclodextrin, thereby reducing the risk of the subject becoming infected with the sexually transmitted pathogen.

10. The method of claim 9, wherein the subject is a human.

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- 11. The method of claim 9, wherein the cells susceptible to infection by the pathogen are epithelial cells.
- 12. The method of claim 11, wherein the epithelial cells are vaginal epithelial cells or rectal epithelial cells.

T3. The method of claim 8, wherein the pharmaceutical composition is formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.

- 14. The method of claim 9, wherein the pharmaceutical composition is formulated in a suppository, a film, a vaginal disk, or a condom.
- 15. The method of claim 9, wherein the β-cyclodextrin is
  2-hydroxypropyl-β-cyclodextrin.
  - 16. The method of claim 9, wherein the pharmaceutical composition further comprises a contraceptive, an antimicrobial agent, an antiviral agent, a lubricant, or a combination thereof.

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- 17. The method of claim 16, wherein the contraceptive is a spermicide.
- 18. The method of claim 16, wherein the antimicrobial agent is an antibiotic.
- 19. The method of claim 9, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.
  - 20. The method of claim 19, wherein the enveloped virus is an immunodeficiency virus, a Tlymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.

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- 21. The method of claim 10, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.
- 22. The method of claim 19, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.

23. A method of reducing the risk of transmission of a sexually transmitted disease by a subject infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen with a pharmaceutical composition comprising a β-cyclodextrin, thereby reducing the risk of transmission of the sexually transmitted disease by the subject.

- 24. The method of claim 23, wherein the subject is a vertebrate.
- 25. The method of claim 23, wherein the cells susceptible to infection comprise a secretion produced by the subject.
  - 26. The method of claim 25, wherein the secretion is semen or a vaginal secretion.

27. The method of claim 23, wherein the cells susceptible to infection are epithelial cells.

28. The method of claim 23, wherein the pharmaceutical composition is formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.

- 29. The method of claim 23, wherein the pharmaceutical composition is formulated in a suppository, a bioadhesive polymer, a vaginal disk, or a condom.
- 30. The method of claim 23, wherein the β-cyclodextrin is 2-hydroxypropyl-β-cyclodextrin.

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- 31. The method of claim 23, wherein the pharmaceutical composition further comprises an antimicrobial agent, an antiviral agent, or a combination thereof.
  - 32. The method of claim 31, wherein the antimicrobial agent is an antibiotic.
- 33. The method of claim 23, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.
- 34. The method of claim 33, wherein the enveloped virus is an immunodeficiency virus, a T lymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.
- 35. The method of claim 24, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.
- 36. The method of claim 33, wherein the microbial pathogen is a bacterium, a yeast, a mycoplasma, or a protozoan.

37. A pharmaceutical composition, comprising a β-cyclodextrin and an agent selected from a contraceptive, an agent for treating a sexually transmitted disease, a lubricant, and a combination thereof.

38. The pharmaceutical composition of claim 37, wherein the contraceptive is a spermicide.

39. The pharmaceutical composition of claim 27, wherein the agent for treating a sexually transmitted disease is an antimicrobial agent or an antiviral agent.

40. A composition for reducing the risk of transmission of a sexually transmitted disease, the composition comprising a solid substrate and a β-cyclodextrin.

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- 41. The composition of claim 40, wherein said the solid substrate comprises an organic polymer.
- 42. The composition of claim 41, which is a condom, a diaphragm, a vaginal disk, or a vaginal film.
  - 43. The composition of claim 41, which is a glove.
- 44. The composition of claim 40, wherein the solid substrate is an absorptive substrate.
  - 45. The composition of claim 44, which is a sponge or a tampon.

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